## IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

VERSUS TECHNOLOGY, INC.,	)	
Plaintiff,	)	
v.	)	Civil Action No. 04-1231-SLR
RADIANSE, INC.	) )	CONFIDENTIAL FILED UNDER SEAL
Defendant.	j ,	

### AFFIDAVIT OF PAUL TESSIER

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Dated: May 12, 2005

## IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

VERSUS TECHNOLOGY, INC.,	)	
Plaintiff,	)	
v.	)	Civil Action No. 04-1231-SLR
RADIANSE, INC.	)	
Defendant.	)	

## AFFIDAVIT OF PAUL TESSIER

- 1. My name is Paul Tessier. I make this affidavit on the basis of my personal knowledge.
- 2. I am the Vice President of Engineering for Radianse, Inc. (Radianse) and am a cofounder of Radianse. In this role I am responsible for all product development for Radianse. I directly manage the Radianse engineering organization. I have directly contributed to and have personal knowledge of the architecture and design of Radianse's products. I am listed as an Inventor on many of the Radianse patent applications. All of Radianse's commercial products have been developed under my leadership.
  - 3. Radianse manufactures and sells the Radianse Indoor Positioning System (IPS).
  - 4. I am fully familiar with design and method of operation of the Radianse IPS.
- 5. The Radianse IPS accurately and continuously tracks the location of assets or people in virtually any indoor environment. The Radianse IPS is based on a proprietary technique developed by Radianse to (a) identify and (b) determine the location of objects indoors. Both of these functions are essential to the operation of the Radianse IPS. The Radianse IPS is comprised of four parts a small, inexpensive, battery-powered transmitter

called an ID Tag, a receiving unit called a Receiver, a wired or wireless network, and application software.

- 6. ID Tags are small devices that transmit unique identification codes and status information by means of radio frequency (RF) transmissions. These ID Tags are worn by individuals or attached to assets to be tracked.
- 7. Signals from the ID Tags are received by Receivers. Receivers are placed at various locations around a facility and connect directly to the facility's network. Receivers process the signals received from the ID Tags then send the data to a PC running Radianse software.
- 8. The Radianse software contains a proprietary algorithm to identify and determine the location of ID Tags, which it then makes available through a web interface, sends to existing customer databases/applications, or sends on to other value-added applications via XML.
- 9. In the Radianse IPS, ID Tags are identified by signals that are transmitted in the form of RF packets that are sent as REDACTED. The RF message format for the transmissions from ID Tags in the Radianse IPS is described in Appendices A and B to this Affidavit. In particular, each RF packet includes identification of the ID Tag.
- 10. In addition to providing unique identification information for the ID Tag, the RF signal transmitted by the ID Tag in the Radianse constitutes the primary information used by the Radianse IPS software to locate the ID Tag.
- 11. The ID Tags in the Radianse IPS do not transmit identification information by means of IR.
- 12. The Radianse IPS does not determine the identification of ID Tags be means of IR transmissions.

- 13. The RF transmissions from ID Tags in the Radianse IPS are followed by the transmission of a short IR signature in standard industry format that does not contain identification information and that is not unique to Radianse. The IR signal can only be received if a valid RF packet is received. The IR signal has no relevance or meaning by itself.
- 14. The IR signal transmitted by the ID Tags in the Radianse IPS does not identify the ID Tag.
- 15. The RF transmissions from ID Tags in the Radianse IPS provide the primary means by which the locations of the ID Tags are calculated by Radianse. The IR signals transmitted by the Radianse ID Tags provide supplementary location information.
- 16. The Radianse IPS requires the RF signal to locate and identify ID Tags, but does not require the IR signal either to identify or locate ID Tags.

Signed under the pains and penalties of perjury this 4<sup>th</sup> day of May, 2005.

Paul Tessier

Commonwealth of Massachusetts Essex, SS:

Then appeared before me the above-named Paul Tessier and gave oath that the foregoing statements are true on the basis of this personal knowledge.

Notary Public

Dated:

Appendix A - Excerpt from Radianse "System Release 1 Specification"

RF Message Format

The RF message format is given in the table below where:

PEDACTE

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REDACTED VERSION – PUBLICLY FILED

IR Message Format

An IR message

## Appendix B – Comments From Radianse Source Code



The RF message is transmitted as a manchester encoded bit stream.



REDACTED VERSION – PUBLICLY FILED

REDACTED

A message starts with an RF transmission of a encoded bit stream. This is immediately followed by an IR transmission of a signature.

REDACTED VERSION – PUBLICLY FILED

REDACTED

Message Format

A complete message contains a REDACTED immediately by a signature sent via IR.

data packet sent via RF, followed

REDACTED

The RF packet is sent as

encoded data.

REDACTED

REDACTED VERSION – PUBLICLY FILED

REDACTED VERSION – PUBLICLY FILED

### **CERTIFICATE OF SERVICE**

I, Christian Douglas Wright, hereby certify that on May 12, 2005, I caused to be electronically filed a true and correct copy of the foregoing document with the Clerk of the Court using CM/ECF, which will send notification that such filing is available for viewing and downloading to the following counsel of record:

George Pazuniak, Esquire Connolly Bove Lodge & Hutz LLP The Nemours Building 1007 N. Orange Street Wilmington, DE 19801, Esquire

I further certify that on May 12, 2005, I caused a copy of the foregoing document to be served by hand delivery on the above-listed counsel of record.

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Attorneys for Radianse, Inc.

WP3:1093430.1 63582.1001

### **CERTIFICATE OF SERVICE**

I, Christian Douglas Wright, hereby certify that on May 25, 2005, I caused to be electronically filed a true and correct copy of the foregoing document with the Clerk of the Court using CM/ECF, which will send notification that such filing is available for viewing and downloading to the following counsel of record:

George Pazuniak, Esquire Connolly Bove Lodge & Hutz LLP The Nemours Building 1007 N. Orange Street Wilmington, DE 19801, Esquire

I further certify that on May 25, 2005, I caused a copy of the foregoing document to be served by hand delivery on the above-listed counsel of record.

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